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ASA-1151

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

    M. ASANO et al

Serial No. 10/650,851   Group Art Unit: 2171

Filed: August 29, 2003

For: STORAGE OPERATION MANAGEMENT PROGRAM AND
      METHOD AND A STORAGE MANAGEMENT COMPUTER

PETITION TO MAKE SPECIAL
UNDER 37 CFR §1.102(d) (MPEP §708.02(VIII))

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450   November 12, 2004

Sir:

    The Applicants petition the Commissioner to make the above-identified application special in accordance with 37 CFR §1.102(d).

    In accordance with the requirements set forth in Manual of Patent Examining Procedure §708.02(VIII), the Applicants Believe that all claims are directed to a single invention. If the Office determines that all claims are not directed to a single invention, Applicant will make an election without traverse as a prerequisite to the grant of special status.

    Further, a pre-examination search has been conducted in the following areas: Class 707, subclass 204; and Class 711, subclasses 100, 154, 161, and 162. A key word search was

also performed on the USPTO full-text database, including published U.S. patent applications.

Of the documents reviewed during the search, those deemed to be most closely related to the subject matter encompassed by the claims are listed and discussed below. The claimed subject matter is believed to be patentable over the teachings of these documents for the reasons set forth. One copy of each of these documents accompanies this Petition.

Discussion of documents developed by pre-examination search

U.S. Patents

6,681,303 B1   Watanabe, et al.

U.S. Patent Application Publications

2002/0099914 A1   Matsunami, et al.
2003/0074528 A1   Soejima, et al.
2003/0188114 A1   Lubbers, et al.
2003/0204597 A1   Arakawa, et al.
2003/0233518 A1   Yamagami, et al.

The patent to Watanabe, et al. (US 6,681,303) ("Watanabe") is directed to a storage system designed to improve remote copying, reduce the size of a copy destination storage area, and shorten the time required for migratory copying by generating a copy of only such areas that need to

be copied. A request for remote copy pair generation

accompanied with parameters including emulation type, capacity

of logical volume, and the area made the object of remote

copying, is issued from one controller to another. Watanabe,

however, does not disclose the generation of a replication

(copy) destination data areas based on a policy or information

of the replication source data area. Further, Watanabe does

not disclose to determine a different route for replication

transfer based on a policy or information of the replication

source data area and/or line information.

The patent application publication to Matsunami, et al.

(2002/0099914) ("Matsunami") is directed to a method for

realizing storage pool management without forming beforehand

logical unit numbers for a storage pool area. Matsunami

discloses a method of creating a storage area, including a

step of setting a logical storage area to a storage connected

to a management terminal via a network in accordance with

information on the storage and information on the logical

storage area. When a volume is formed, a policy is designated

to select a storage area having a corresponding attribute from

the pool area in the storage. Matsunami does not appear to

discuss volume replication.

The patent application publication to Soejima, et al.
(2003/0074528) ("Soejima") is directed to volume management,
including a method of receiving a volume creation request
specifying a requested storage capacity and requested average
performance by a management computer. A judgment is formed as
to whether there exists an unoccupied area satisfying the
requested storage capacity. If such an area exists, a further
judgment is made as to whether any of those areas have the
requested average performance. Soejima also does not appear
to discuss volume replication.

The patent application publication to Lubbers, et al.
(2003/0188114) ("Lubbers") is directed to data replication
with virtualized volumes. To create a copy set, a user
designates a virtual disk as source and a site storage cell as
destination. In response to a query for compatible storage
cells, storage cells that can support data replication
management (DRM) operations are presented to a user for
identification and selection as destinations, although "[i]t
is contemplated that the system could automatically select a
storage cell to host the replica rather than enabling user
selection.". Lubbers does not teach that the compatibility
determination is made based on a policy or information of the
replication source data area, or that a different replication

transfer route is determined based on a policy or information of the replication source data area and/or line.

The patent application publication to Arakawa, et al. (2003/0204597) ("Arakawa") discloses a storage system having a server that creates and manages a replication of a logical volume or virtual volume in another storage subsystem. Arakawa, however, determines the suitability of a storage area as a destination storage area based on size and attributes of the candidate destination storage area, and does not teach that the compatibility determination is made based on a policy or information of the replication source data area, or that a different replication transfer route is determined based on a policy or information of the replication source data area and/or line.

The patent application publication to Yamagami, et al. (2003/0233518) ("Yamagami") discloses a method for managing replication volumes in which mirror volumes are created from a volume pool by specifying arguments which may include performance and reliability indications. Mirror volumes are user-selected, and Yamagami does not teach that the compatibility determination is made based on a policy or information of the replication source data area, or that a different replication transfer route is determined based on a
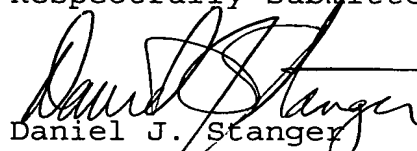
policy or information of the replication source data area and/or line.

Conclusion

The Applicants submit that the foregoing discussion demonstrates the patentability of the claimed invention over the closest known prior art. Accordingly, the requirements of 37 CFR §1.102(d) having been satisfied, the Applicants request that this Petition be granted and that the application be examined according to prescribed procedures.

A Credit Card Payment Form in the amount of $130.00 accompanies this Petition in satisfaction of the fee set forth in 37 CFR §1.17(h). The Commissioner is hereby authorized to charge any additional payment due, or to credit any overpayment, to Deposit Account No. 50-1417.

Respectfully submitted,

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